

# **US-Japan HIF Exchange/Collaboration**

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**US and Japanese researchers are part of a small international community working on heavy ion fusion and high energy density physics. Excellent professional relationships across the Pacific are being established.**

**Informational exchanges have been beneficial to both parties, and collaborations have started to develop.**

**Areas of potential collaboration include:**

**Induction modulator and induction core material research.**

**Bunch compression in rings and linacs.**

**Final focus using using a plasma lens or solenoids as the final optic.**

**Neutralization during final focus.**

**Vlasov modeling of beams using PIC and a direct, semi-Lagrangian**

**CIP method; (Fluid simulations in chamber may also benefit from codes using CIP method).**

**Source and injector physics and technology.**

**Negative ion cross-section measurements.**

**High energy density physics.**

**It is anticipated that both countries will continue to benefit technically from the collaborations and exchanges in heavy ion fusion.**